Near-Infrared and CO Observations of Submillimeter Galaxies

David Frayer frayer@ipac.caltech.edu (626)395-3502 SIRTF Science Center CALTECH 314-06 Pasadena, CA 91125

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Abstract

I present our ongoing OVRO CO observations and Keck near-infrared wavelength observations of the high-redshift sub-mm population of galaxies. These observations are important for our understanding of the early evolution of galaxies since the sub-mm population contributes significantly to the total amount of star-formation and AGN activity at high redshift. The CO data suggest that the sub-mm galaxies are analogous to the gas-rich ultraluminous systems found in the local universe. The near-infrared data show that many of the sub-mm galaxies are faint-red sources that are undetected at ultraviolet/optical wavelengths.